

**Terrace Water Company
DWR Water-Energy Grant Application
Attachment 3 – Work Plan**

Description of the Project

Terrace Water Company's (TWC) proposed project involves the replacement of approximately 800 linear feet of steel and asbestos cement potable water pipe with 6-inch PVC C900 potable water pipe. Pipeline appurtenances (e.g. fire hydrants, valves) will also be replaced. Existing customer services will be reconnected. Water savings, energy savings and GHG reductions will result from this project.

A Vicinity Map and a map of the existing TWC distribution system which details the proposed project area are included in File 1 of Attachment 3.

Work Plan Tasks

Task 1: Direct Project Administration and Reporting

A. DWR Energy-Grant Application and Work Plan Development

Prepare materials for grant application, including development of work plan for the proposed project.

B. Project Administration

Coordination with DWR staff. Prepare, review, approve, and submit claims for reimbursement. Attend project meetings. Prepare progress reports, draft and final project reports.

C. Labor Compliance Document

Coordinate labor compliance program.

Task 2: Project Evaluation/Design/Engineering

A. Leak Detection Survey

Survey TWC distribution system to detect leaks originating from pipelines and appurtenances. Prepare report and map detailing areas with measureable leaks and water loss.

B. Utility Potholing

Expose utilities at up to five locations at a depth of 6.0' or less. Survey location of exposed facilities. Identify size, depth, material, and orientation of exposed facilities. Permits and significant traffic control are not included in this task.

C. Field Topographic Survey & Right-of-Way Mapping

Field survey to determine surface elevations, locations of roadway features including curb and gutter, locations of existing utilities. Mapping of points into digital files (AutoCAD) for use in development of design drawings. Right-of-ways and property lines within the project area will be mapped from record drawings.

D. Engineering Design (Drawings and Specifications)

Preparation of design drawings for proposed pipeline and appurtenances replacement. Design drawings will be prepared for the following submittals for regulatory review (Task 4): 50%, 95%, and 100%. Comments received from regulatory agencies will be incorporated at each submittal level. Project specifications will be prepared.

Technical specifications will be prepared per industry standards. Coordination with DWR will determine the type/form of the Contract Specifications to be utilized for the proposed project. A bid form will be prepared for review.

E. Construction Cost Estimates

Construction cost estimates will be created during the design efforts at the 50% and 95% design submittals. It is anticipated that construction personnel will be required to be paid prevailing wages.

Task 3: Environmental Documentation

A. Preparation of Notice of Exemption

It is anticipated that the proposed project will be exempt from CEQA requirements as the project consists of removing and replacing existing pipelines within public right-of-ways. A notice of exemption will be completed and filed with the State.

Task 4: Permitting

A. Regulatory Review

The design drawings and specifications will need to be reviewed by regulatory agencies prior to construction. Anticipated charges and fees from these agencies are included in the project budget. TWC will coordinate regulatory review submittals.

B. Required Permits

It is anticipated that the proposed project will require the following permits from the County of San Bernardino prior to construction:

- Encroachment Permit
- Excavation Permit
- Traffic Control Permit

Task 5: Proposal Monitoring Plan

A. Preparation of Proposal Monitoring Plan

Coordination with DWR staff on Monitoring Plan requirements and appropriate metrics to determine water and energy savings and GHG reductions. Obtain

information to analyze and compare selected metrics. Prepare draft and final Monitoring Plans for submittal to DWR.

Task 6: Project Construction/Implementation

A. Bidding Services for Construction Contract

Preparation of advertisements and submittal for advertising in local publications. Disbursement of approved construction documents to prospective bidders. Pre-bid construction conference for prospective bidders including project site job walk. Issuance of addenda as necessary in response to prospective bidder questions. Bid opening for proposed project. Coordination of Notice of Award, Construction Contract Agreement, and Notice to Proceed. Preconstruction meeting with selected contractor after Notice of Award.

B. Project Construction

Project construction will commence after Notice to Proceed is sent to selected contractor. Installation of approximately 800 linear feet of 6-inch PVC waterline, replacing leaking steel and AC pipes/appurtenances. Reconnection of existing customer services. Road resurfacing per County of San Bernardino requirements. Includes project mobilization/demobilization.

C. Construction Management

Construction Manager will provide project updates including weekly reports including photographs documenting conditions before, during, and after construction. Review RFIs from contractor; log and coordinate change orders if necessary; log, track, and review submittals; conduct final inspection and project walkthrough; review contract progress payments.